

R E M A R K S

This is in response to the Office Action that was mailed on February 23, 2005. Claims 1-3 and 7 are amended in accordance with the disclosure to more particularly point out and distinctly claim the present invention. No new matter is introduced by this Amendment. Claims 1-8 are in pending the application.

Claim 7 was rejected under the second paragraph of 35 U.S.C. §112 as failing to define the invention properly. Claim 7 has been amended as suggested by the Examiner, thereby obviating this ground of rejection.

THE INVENTION. The battery of the present invention is characterized by a battery container that has a covering which has been applied over the outer peripheral surface of the container. The covering in this invention consists essentially of an ion impermeable and extensible high polymer sheet having a tensile elongation percentage of 1% or more. As may clearly be seen e.g. from Figures 1, 4, and 7 herein, the battery container and the high polymer sheet are not laminated and united together. In accordance with the present invention, therefore, if a nail pierces the battery, the covering – which consists essentially of the high polymer sheet and is not laminated onto the container – can be effectively deformed between the positive and negative electrodes through the battery container to prevent a large current from instantly flowing between the electrodes.

Claims 1-8 were rejected under 35 U.S.C. §103(a) as being unpatentable over JP 10-208708 (JP '708) in view of JP 2000-173564 (JP '564). The rejection is respectfully traversed.

JP '708 and JP '564 disclose batteries having a container made of **laminated** film, the laminated film being made up of metal foil and high polymer sheets with a TEP of at least 1%. The object of the prior art is to prevent nails from piercing the battery container by using the laminated film that include a high polymer layer with a high TEP.

In contrast, the present invention covers the battery container with a separate high polymer sheet. Then if for instance a nail pierces the battery of the present invention, the nail pushes the high polymer sheet to a position between the positive and negative electrodes of the battery container together with the nail, which avoids high current from instantly flowing between the electrodes.

In JP '708 and JP '564, the high polymer sheets may constitute the outermost layer of the battery containers. However, the battery containers are made of **laminated** film containing both the metal foil and the high polymer sheet. In contrast, the battery of the present invention is characterized in that the outer peripheral surface of the batter container is covered with a **separate** ion impermeable and extensible high polymer sheet having a tensile elongation percentage of 1% or more. This double covering feature of the present invention is neither taught nor suggested by JP '708 or by JP '564, alone or in combination.

More specifically, in the case of JP '708 and JP '564, the high polymer sheet and the battery container are united to one another by sheet lamination. **The high polymer sheet therefore cannot stretch elastically**, so that it cannot be deformed between the two electrodes through the container. Manifestly, the batteries of JP '708 and JP '564 cannot achieve this beneficial effect provided by the present invention.

Claims 2, 3, 4, and 5. On page 3 of the Office Action, the Examiner alleges that:

Regarding claims 2, 3, 4, and 5, the outer periphery of the cell structure is covered with an ion impermeable and extensible high polymer sheet (65) (see abstract; Figures 1 and 2).

The cell structure of JP '708 is covered with a laminated film comprising a metal foil and a high polymer sheet. In contrast, the cell structure of the battery claimed herein is covered with a sheet that consists essentially of an ion impermeable and extensible high polymer sheet – which is not laminated with metal foil. This feature of the present invention is neither taught nor suggested by the references applied nor by any combination thereof.

Faulty combination of references. As discussed immediately above, on page 3 of the Office Action the Examiner has taken the position that the outer periphery of the **cell structure** in JP '708 is covered with an ion impermeable and extensible high polymer sheet. However, on page 4 of the Office Action, the Examiner argues that a person of ordinary skill in the art “would be motivated by the disclosure of JP '564 to use a highly elastic thin film as the **outer layer** of the bag of JP '708”

(emphasis supplied). While there may be some logic to the theory that JP '564 motivates the use of an elastic thin film on the outer periphery of the cell structure in JP '708, no basis is seen for the Examiner's argument that a person of ordinary skill in the art would be motivated to use an elastic thin film as the outer layer of the JP '708 bag.

Clearly, persons of ordinary skill in the art would not derive the features of the invention reflected in the present claims from the disclosures of JP '708 and JP '564, individually or in combination. Accordingly, it is respectfully requested that the rejection of record be withdrawn.

For any questions, the Examiner is respectfully requested to telephone Richard Gallagher, Reg. No. 28,781, at (703) 205-8008.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,
BIRCH, STEWART, KOLASCH & BIRCH, LLP

By 

Gerald M. Murphy, Jr., #28,977

P.O. Box 747
Falls Church, VA 22040-0747
(703) 205-8000

GMM/RG 